Software Version Description for

Translation Maps Segment Version 2.0.0.5

for ECPN Version 2.2.0.5

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Software Version Description for Translation Maps

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1.0 Scope

This Software Version Description (SVD) applies to the Electronic Commerce Processing Node (ECPN) Translation Maps Segment. This document follows the standards set forth in *Military Standard Software Development and Documentation* (MIL-STD-498) and in the Data Item Description (DID) for a Software Version Description (DI-IPSC-81442), as tailored by Inter-National Research Institute (INRI).

1.1 Identification

This document applies to Version 2.0.0.5 of the ECPN Translation Maps Segment, which is a segment to be used with ECPN software, Version 2.2.0.5.

1.2 System Overview

The purpose of the ECPN Translation Maps Segment is to supply the ECPN Translator with the maps and associated files necessary to convert data to and from X12s and user-defined files (UDFs). This section covers the following items:

- Transaction sets supported by the Translation Maps Segment
- Systems supported by the Translation Maps Segment

1.2.1 Transaction Sets Supported by the Translation Maps Segment

The Translation Maps Segment supports translation for several transaction sets. Table 1-1 lists these transaction sets by identifier and title.

Table 1-1 Transaction Sets

Identifier	Title
214	Transportation Carrier Shipment Status
315	Status Details (Ocean)
521	Income or Asset Offset
820	Payment Order/Remittance Advice
824*	Application Advice
836	Procurement Notice
838	Trading Partner Profile
840	Request for Quotation
843	Response to Request for Quotation
850	Purchase Order
855	Purchase Order Acknowledgment
860	Purchase Order Change Request – Buyer Initiated
865	Purchase Order Change Acknowledgment/ Request – Seller Initiated

*Also used by ECPN for 824 acknowledgments of UDF→X12 translation.

1.2.2 Systems Supported by the Translation Maps Segment

The ECPN Translation Maps Segment provides maps for several systems. To view a list of the systems for which translation is currently available, as well as the transaction sets supported for incoming and outgoing translation, consult Table 1-2.

The third column from the right — 824 — indicates whether ECPN generates an 824 acknowledgment after UDF→X12 translation, and the last column on the right — 997 — indicates whether ECPN generates a 997 acknowledgment after X12→UDF translation. These 824 and 997 acknowledgments inform the originating site of the success or failure of the message's translation.

Table 1-2 Systems Supported by Translation Maps Segment

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
EDA-PDF	NA	NA	NA	NA	NA	NA
GTN	214	3020			X	Yes
	214	3040			X	Yes
	214	3050			X	Yes
	214	4010			X	Yes
	315	3030			X	Yes
	315	3060			X	Yes
	315	4010			X	Yes
IGS	521	4010			X	Yes
IPC	820 – Travel (T)	3040	X	Yes		
	820 – Partner (P)	3050	X	Yes		
	820 – Bank (X)	3050	X	Yes		
	820 – CBA	3050	X	Yes		
	820 – DTS	3050	X	Yes		
	824 – DTS	3050	X	Yes		
PADDS (April Specification)	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes

Table 1-2 Systems Supported by Translation Maps Segment (Continued)

System	Transaction	X12 version release	UDF→X12	824	X12→UDF	997
SAACONS	824	3010	X	Yes	X	Yes
	836	3010	X	Yes		
	840	3010	X	Yes		
	843*	3010			X	Yes
	850	3010	X	Yes		
	860	3010	X	Yes		
SPS	824	3050	X	Yes	X	Yes
	836	3050	X	Yes	X	Yes
	840	3050	X	Yes	X	Yes
	843	3050	X	Yes	X	Yes
	850	3050	X	Yes	X	Yes
	855	3050	X	Yes	X	Yes
	860	3050	X	Yes	X	Yes
	865	3050	X	Yes	X	Yes
SPS-EDA	NA	NA	NA	NA	NA	NA

*For every SAACONS 843 that is translated, ECPN transmits a 3070 838.

1.3 Document Overview

The purpose of this document is to identify and describe the Translation Maps Segment, Version 2.0.0.5. This document contains the following sections:

Scope

States the purpose of the Translation Maps Segment, describes its role within ECPN, and states the purpose of this SVD. (Section 1.0)

Referenced Documents

Lists the documents applicable to this SVD. (Section 2.0)

Version Description

Provides descriptions of the directories installed by the Translation Maps Segment and the software changes made to the Translation Maps Segment. (Section 3.0)

Notes

Defines the acronyms and abbreviations used in this SVD. (Section 4.0)

2.0 Referenced Documents

The following documents are referenced in this SVD. In the event of a later version of a referenced document being issued, the later version shall supersede the referenced version.

- *Data Item Description – Software Version Description* (DI-IPSC-81442), December 1994.
- *Military Standard – Software Development and Documentation* (MIL-STD-498), December 1994.
- *Software User's Guide for Electronic Commerce Processing Node, Version 2.2,* INRI, June 1999.
- *System Administrator's Guide for Electronic Commerce Processing Node, Version 2.2,* INRI, June 1999.

3.0 Version Description

The following subsections describe Version 2.0.0.5 of the Translation Maps Segment for ECPN Version 2.2.0.5.

3.1 Inventory of Materials Released

The following physical media and associated documentation make up Version 2.0.0.5 of the Translation Maps Segment for ECPN Version 2.2.0.5:

- One tape: Translation Maps Segment Version 2.0.0.5 for ECPN Version 2.2.0.5.
- *Software Version Description for Translation Maps Segment Version 2.0.0.5 for ECPN Version 2.2.0.5,* August 1999.

3.2 Changes Installed

The following subsections describe:

- Directories installed by the Translation Maps Segment
- Software changes to the Translation Maps Segment

3.2.1 Directories Installed

For a list of the directories that are put in place when Version 2.0.0.5 of the Translation Maps Segment is installed, see Table 3-1. Instructions for configuring channels for translation are provided in Section 4.1.2 of the *Software User's Guide for Electronic Commerce Processing Node, Version 2.2.*

Table 3-1 Translation Maps Segment Directories

This directory	Contains	Appears in the GUI as
/h/data/global/EC/ Messages/Maps	Map families (that is, individual collections of map files) for each system for which translation is available	Options in the MESSAGE TYPE list box (other than X12) in the TRANSLATION tab of the edit channel window
	Look-up tables for each system for which translation is available	LOOK-UP TABLES list box in the TRANSLATION tab of the edit channel window
/h/data/local/EC/ html/MapDocs	Mapping specifications and implementation conventions for each system for which translation is available	View Documents button in the TRANSLATION tab of the edit channel window
/h/data/global/EC/ Messages/MessageDesc	Descriptions of map files, transaction sets supported, and any unique addressing information for each system for which translation is available	Information in the DESCRIPTION box in the TRANSLATION tab of the edit channel window

3.2.2 Software Changes

Version 2.0.0.5 of the Translation Maps Segment includes the following software changes:

1. *Enhancement:* The Global Transportation Network (GTN) map family is now included in the list of map families that may be selected when configuring a channel. For a detailed description of the GTN map family, see the GTN map description file that appears in the DESCRIPTION box in the TRANSLATION tab of the edit channel window (accessed as described in Section 4.1.2 of the *Software User's Guide for Electronic Commerce Processing Node).*

2. *Problem:* Several of the map description files that appear in the DESCRIPTION box in the TRANSLATION tab of the edit channel window contain tabs where there should be spaces, making the display difficult to read.

   Solution: Replaced the tabs with spaces.

The following software changes are not included in Version 2.0.0.5 but were previously made available for electronic download from the K410 machine at INRI Newport News:

Version 2.0.0.4 (2 August 1999)

Problem: In the SPS maps, several numeric fields are assigned incorrect maximum ranges.

Solution: Assigned the correct ranges to the fields in question.

Version 2.0.0.3 (6 August 1999)

Problem: The current IPC UDF to X12 map populates the GS08 element using the government I.C. standard of "003050D820R1" for "X" and "P" transactions. Some vendors and the IPC-EFT banks cannot process this extended value and can only process the X12 standard GS08 value of "003050".

Solution: Modified the IPC UDF to X12 maps to populate the GS08 element with "003050" for all IPC "X" and "P" transactions.

Version 2.0.0.2 (28 July 1999)

Problem: During SAACONS X12 to UDF message translation, the text generated and entered into the Application ID field in Rec01 of the UDF message is too long and shifts all other Rec01 fields out of position.

Solution: Modified the SAACONS X12 to UDF map to shorten the text entered into the Application ID field to the required length.

Version 2.0.0.1 (19 July 1999)

1. *Problem:* Version 2.0 of the Translation Maps Segment modified the IPC UDF to X12 maps to support pending changes to the IPC message data format. These pending changes were not implemented, however, and the Version 2.0 IPC maps and the current IPC message data format are therefore incompatible.

   Solution: Modified the IPC UDF to X12 maps to support the current IPC message data format as follows:

   – In all headers for "X" and "P" type transactions, reduced the size of the Vendor ID field from 13 to 10 characters. For Version 2.0, the size of this field was increased to accommodate DUNS and DUNS+4 values for routing look-up.

   – In Record 2, Field 5, of all "X" and "P" type transactions, reduced the size of the Vendor ID field from 13 to 8 characters. For Version 2.0, the size of this field was increased to accommodate DUNS and DUNS+4 values for routing look-up.

   – Removed the logic for the TPDB look-up and the vendor table look-up of ISA07, ISA08 and GS03 fields that was based upon DUNS and DUNS+4. Now only CAGE-based TPDB look-ups and Vendor ID-based vendor table look-ups are available for the ISA07, ISA08 and GS03 fields.

2. *Problem:* Version 2.0 of the Translation Maps Segment modified the IPC premap to support pending changes to the IPC message data format. These pending changes were not implemented, however, and the Version 2.0 IPC premaps and the current IPC message data format are therefore incompatible.

   Solution: Modified the IPC premap to support the current IPC message data format as follows: Changed the data positional references for the inbound UDF structure to accommodate the reduced size of the record headers (noted in Solution 1). These positional references are used to distinguish records within the IPC UDF.

3.3 Related Documents

This section lists documents pertinent to the Translation Maps Segment (in addition to this SVD).

- *Mercator: Execution Engine Core API Reference Guide*, TSI International Software, Ltd., 1997.
- *Mercator: Map Editor Reference Guide*, TSI International Software, Ltd., 1997.
- *Mercator: Type Editor Reference Guide*, TSI International Software, Ltd., 1997.
- *Security Manager's Guide for Electronic Commerce Processing Node, Version 2.2*, INRI, June 1999.

3.4 Installation Instructions

To install the Translation Maps Segment, Version 2.0.0.5:

1. Log in to ECPN as `root`.
2. Stop the ECPN processes: From the system administrator's menu, select Software→Stop ECPN Software.
3. Enter the following command to create a temporary directory (/h/map_2005) for the map segment:

   ```
   mkdir -p /h/map_2005
   ```

4. Into the tape drive, insert the tape labeled, "Translation Maps Segment Version 2.0.0.5 for ECPN Version 2.2.0.5".
5. Enter the following commands to extract the segment from the tape into the temporary directory:

   ```
   cd /h/map_2005
   tar -xv
   ```

6. Enter the following command to back up the existing maps, install the new maps, and establish the correct ownership and file permissions:

   ```
   ./PostInstall
   ```

7. Restart the ECPN software.

3.5 Possible Problems and Known Errors

1. *Problem:* During IPC/EFT translation, trading partner information is extracted from the trading partner database (TPDB) or the IPC/EFT look-up tables. When a translation fails to find an entry in the TPDB but finds one in the look-up table, the incorrect error TPDB LOOKUP FAILURE: Couldn't find CAGE xxxxx in TPDB is placed in the JDS, although the message is processed correctly.

   Work-around: If an entry is found in the look-up table, the message RESETERROR: error flag is reset appears in the JDS after the TPDB LOOKUP FAILURE error. TPDB look-up failures followed by a RESETERROR message should be ignored.

2. *Problem:* It is possible for generated 997s to incorrectly report the field number of an error within a segment.

   Work-around: No work-around is available. The field number of an error within a segment is calculated by counting the number of fields in a segment before the error that is reported in the translation audit log. The Mercator Transformation Engine does not report in the audit log when it finds an empty optional field within a segment.

3. *Problem:* Failed translations may result in a zero-length error and a general Translation Failed entry in the JDS.

   Work-around: The TRANSLATION TOOLBOX, available as a pop-up menu option from the Message Log and Error Queue, can be used to determine the reason that the translation failed. If a message contains structural errors (e.g., segments appearing out of order), the map will misinterpret the format of the message and will not be able to report a meaningful error message. The TRANSLATION TOOLBOX can be used to diagnose which portion of the message contains errors; however, manual inspection is required to determine the exact problem.

4. *Problem:* The SAACONS 997 and 824 acknowledgments currently report only whether a translation has passed or failed, without indicating the specific errors that caused it to fail.

   Work-around: Manually translate the message using the TRANSLATION TOOLBOX option, available on the pop-up menu for the Message Log window and the Error Queue window. The TRANSLATION TOOLBOX option will generate a trace file that lists each step of the translator data validation. By viewing this file in conjunction with either the provided X12 Implementation Convention or the UDF specification of the appropriate transaction set, you can deduce the location and nature of the error.

4.0 Notes

The following acronyms and abbreviations appear in this document:

DID: Data Item Description

DISA: Defense Information Systems Agency

DTS: Defense Travel System

DUNS: Data Universal Numbering System

ECPN: Electronic Commerce Processing Node

EDA: Electronic Document Access

GUI: Graphical User Interface

GTN: Global Transportation Network

IGS: Integrated Garnishment System

INRI: Inter-National Research Institute

IPC: Integrated Paying and Collecting

JDS: Journal Data Summary

PADDS: Procurement Automated Data and Document System

PDF: Portable Document Format

SAACONS: Standard Army Accounting and Contracting System

SPS: Standard Procurement System

SVD: Software Version Description

TPDB: Trading Partner Database

UDF: User-Defined File

VAN: Value Added Network

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